

**Table S5.** Lateral Transfer of *Trypanosoma cruzi* kDNA Minicircle Sequences Provoking Gene Knock-out into the Human Genome

Patient	Gene	Function	GeneBank	E-value	Similarity
5	PARP-1	ADP-ribosyltransferase	emb AL359742.15	1.0e <sup>-12</sup>	LINE-1 (0.012)
5)	CNTNAP2	Adhesion molecules and receptors in the vertebrate nervous system	<a href="#">ref NG_007092.2 </a>	4.0e <sup>-38</sup>	LINE-1 (8.0e <sup>-14</sup> )
15	OR1-17	Olfactory receptor	<a href="#">tpg BK004196.1</a>	7.0e <sup>-17</sup>	--
19	ADAM-23	Implicated in cell-cell and cell-matrix interactions including fertilization, muscle development. and neurogenesis. It is highly expressed in the brain where it may function as an integrin ligand.	<a href="#">gb AC009225.4 </a>	0	--
26	CLIC-5	chloride intracellular channel	<a href="#">emb AL355522.11 </a>	2.0e <sup>-137</sup>	--
28	TRIM69	Member of the RING-B-box-coiled-coil (RBCC) family it encodes a protein with an N-terminal RING finger motif. a PRY domain and a C-terminal SPRY domain.	<a href="#">dbj AK292252.1 </a>	2.0e <sup>-45</sup>	--
30	OR1-17	Olfactory receptor	<a href="#">tpg BK004196.1</a>	2.0e <sup>-16</sup>	--
36	Theta-14-3-3	Mediate signal transduction by binding to phosphoserine-containing proteins. Upregulated in patients with amyotrophic lateral sclerosis.	<a href="#">gb BC001197.1 </a>	0	Transposon (0)
44)	PHD finger protein 15	Several PHD fingers acting as binding modules of methylated histone H3.	<a href="#">ref NM_015288.4</a>	3.0e <sup>-93</sup>	--
56	OR1-17	Olfactory receptor	<a href="#">tpg BK004196.1</a>	2.0e <sup>-20</sup>	--
63	citb-109	--	<a href="#">gb AC005871.3 AC005871</a>	2.0e <sup>-136</sup>	--
69	Haplotype HLA	Major histocompatibility complex class I	<a href="#">gb DQ249181.1 </a>	0	LINE-1 (1.0e <sup>-102</sup> )
74	OR1-17	Olfactory receptor	<a href="#">tpg BK004196.1</a>	2.0e <sup>-20</sup>	--

75	Tyrosine -phosphatase	Protein tyrosine-phosphatase. receptor type	<a href="#">embjAL590397.7</a>	$5.0e^{-132}$	--
81	OR1-17	Olfactory receptor	<a href="#">tpg BK004196.1</a>	$6.0e^{-14}$	--
82	OR1-17	Olfactory receptor	<a href="#">tpg BK004196.1</a>	$3.0e^{-9}$	--
82	OR1-17	Olfactory receptor	<a href="#">tpg BK004196.1</a>	$1.0e^{-18}$	--